

CLAIMS

I claim:

1 1. A sealing element for use in a reciprocating gas compressor valve comprising
2 elastomeric material.

1 2. The sealing element of Claim 1 wherein the reciprocating gas compressor
2 valve is a single element non-concentric valve.

1 3. The sealing element of Claim 1 wherein the reciprocating gas compressor
2 valve is concentric ring valve.

1 4. The sealing element of Claim 1 wherein the reciprocating gas compressor
2 valve is ported plate valve.

1 5. A sealing element for use in a reciprocating gas compressor valve comprising
2 a layer of elastomeric material bonded to a substrate.

1 6. The sealing element of Claim 5 wherein the reciprocating gas compressor
2 valve is a single element non-concentric valve.

1 7. The sealing element of Claim 5 wherein the reciprocating gas compressor
2 valve is concentric ring valve.

1 8. The sealing element of Claim 5 wherein the reciprocating gas compressor
2 valve is ported plate valve.

1 9. The sealing element of Claim 1 wherein the elastomeric material is selected
2 from the group consisting of natural rubber, synthetic rubber, fluoro-elastomer, thermoset
3 elastomer, thermoplastic elastomer, elastomeric copolymers, elastomeric terpolymers,
4 elastomeric polymer blends and elastomeric alloys.

1 10. The sealing element of Claim 5 wherein the elastomeric material is selected
2 from the group consisting of natural rubber, synthetic rubber, fluoro-elastomer, thermoset
3 elastomer, thermoplastic elastomer, elastomeric copolymers, elastomeric terpolymers,
4 elastomeric polymer blends and elastomeric alloys.

1 11. The sealing element of Claim 1 wherein said elastomeric material operates
2 between about -120 °F to 450 °F.

1 12. The sealing element of Claim 5 wherein said elastomeric material operates
2 between about -120 °F to 450 °F

1 13. The sealing element of Claim 1 wherein said elastomeric material operates
2 between about 0 to 10,000 psid.

1 14. The sealing element of Claim 5 wherein said elastomeric material operates
2 between about 0 to 10,000 psid.

1 15. A reciprocating gas compressor valve comprising an elastomeric sealing
2 element.

1 16. A reciprocating gas compressor valve comprising a sealing element having at
2 least one layer of elastomeric material.

1 17. The reciprocating gas compressor valve of Claim 15 wherein said valve is a
2 single element non-concentric valve.

1 18. The reciprocating gas compressor valve of Claim 15 wherein said valve is a
2 concentric ring valve.

1 19. The reciprocating gas compressor valve of Claim 15 wherein said valve is a
2 ported plate valve.

1 20. The reciprocating gas compressor valve of Claim 16 wherein said valve is a
2 single element non-concentric valve.

1 21. The reciprocating gas compressor valve of Claim 16 wherein said valve is a
2 concentric ring valve.

1 22. The reciprocating gas compressor valve of Claim 16 wherein said valve is a
2 ported plate valve.

1 23. A reciprocating gas compressor comprising a reciprocating gas compressor
2 valve having an elastomeric sealing element.

1 24. A reciprocating gas compressor comprising a reciprocating gas compressor
2 valve having a sealing element, said sealing element having at least one layer made of
3 elastomeric material.

1 25. A method of making a reciprocating gas compressor valve comprising the
2 following steps:

3 applying elastomeric material to a substrate to produce an elastomeric
4 sealing element; and

5 assembling said sealing element into a reciprocating gas compressor
6 valve for use in a reciprocating gas compressor.

1 26. A method of making a reciprocating gas compressor valve comprising the
2 following steps:

3 making a sealing element of elastomeric material; and
4 assembling said sealing element into a reciprocating gas compressor
5 valve for use in a reciprocating gas compressor.

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1 27. A sealing element for use in an unloader comprising elastomeric material.

1 28. The sealing element of Claim 27 wherein the unloader is a plug unloader.

1 29. The sealing element of Claim 27 wherein the elastomeric material is selected
2 from the group consisting of natural rubber, synthetic rubber, fluoro-elastomer, thermoset
3 elastomer, thermoplastic elastomer, elastomeric copolymers, elastomeric terpolymers,
4 elastomeric polymer blends and elastomeric alloys.

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1 30. An unloader comprising an elastomeric sealing element.

1 31. The unloader of Claim 30 wherein said unloader is a plug unloader.

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1 32. A reciprocating gas compressor comprising an unloader having a sealing
2 element, said sealing element having at least one layer made of elastomeric material.

1 33. A method of making an unloader comprising the following steps:
2 applying elastomeric material to a substrate to produce an elastomeric
3 sealing element; and
4 assembling said sealing element into an unloader for use in a
5 reciprocating gas compressor.

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1 34. A method of making an unloader comprising the following steps:
2 making a sealing element of elastomeric material; and
3 assembling said sealing element into an unloader for use in a
4 reciprocating gas compressor.

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